



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2021-0131; Project Identifier MCAI-2020-01628-T; Amendment 39-21658; AD 2021-15-11]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus SAS Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for all Airbus SAS Model A330-200, -300, -800, and -900 series airplanes; and Model A340-200, -300, -500, and -600 series airplanes. This AD was prompted by reports that certain oxygen supply solenoid valves are a potential source of increased flow resistance within the flightcrew oxygen system. This AD requires a special detailed inspection (flow test) of certain solenoid valves, and replacement if necessary, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For material incorporated by reference (IBR) in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email

ADs@easa.europa.eu; Internet [www.easa.europa.eu](http://www.easa.europa.eu). You may find this IBR material on the EASA website at <https://ad.easa.europa.eu>. You may view this IBR material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0131.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0131; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Vladimir Ulyanov, Aerospace Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3229; email [vladimir.ulyanov@faa.gov](mailto:vladimir.ulyanov@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Background**

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2020-0273, dated December 9, 2020 (EASA AD 2020-0273) (also referred to as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for all Airbus SAS Model A330-201, A330-202, A330-203, A330-223, A330-243, A330-301, A330-302, A330-303, A330-321, A330-322, A330-323, A330-341, A330-342, A330-343, A330-743L,

A330-841, A330-941, A340-211, A340-212, A340-213, A340-311, A340-312, A340-313, A340-541, A340-542, A340-642, and A340-643 airplanes. Model A330-743L, A340-542, and A340-643 airplanes are not certificated by the FAA and are not included on the U.S. type certificate data sheet; this AD therefore does not include those airplanes in the applicability.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Airbus SAS Model A330-200, -300, -800, and -900 series airplanes; and Model A340-200, -300, -500, and -600 series airplanes. The NPRM published in the *Federal Register* on March 8, 2021 (86 FR 13239). The NPRM was prompted by reports that certain oxygen supply solenoid valves are a potential source of increased flow resistance within the flightcrew oxygen system. The NPRM proposed to require a special detailed inspection (flow test) of certain solenoid valves, and replacement if necessary, as specified in EASA AD 2020-0273.

The FAA is issuing this AD to address increased flow resistance within the flightcrew oxygen system, which could lead to a reduced flow of oxygen supply to the flightcrew oxygen masks, and in combination with in-flight depressurization, smoke in the flight deck, or a smoke evacuation procedure, could lead to flightcrew hypoxia and loss of useful consciousness, resulting in loss of control of the airplane. See the MCAI for additional background information.

### **Comments**

The FAA gave the public the opportunity to participate in developing this final rule. The following presents the comments received on the NPRM and the FAA's response to each comment.

### **Request to Allow Additional Source of Service Information**

Delta Air Lines (DAL) asked that the FAA add a paragraph (h)(3) to the proposed AD which would allow operators to use the serial numbers identified in Safran Service

Information Letter (SIL) SIL120, dated May 20, 2019, instead of the year of manufacture, to determine whether a solenoid valve is an affected part, as defined in EASA AD 2020-0273. DAL stated that the SIL contains the serial numbers and year of manufacture of affected solenoid valves.

The FAA agrees to clarify. EASA AD 2020-0273 does not specify how to determine whether a solenoid valve is an affected part. The FAA agrees that operators can use Safran SIL120 as an additional source of guidance for identification of the affected parts by the serial numbers. The FAA has added Note 1 to paragraph (g) of this AD stating that additional guidance for identification of affected parts can be found in Safran Service Information Letter SIL120, dated May 20, 2019.

#### **Request Not to Return Affected Valves to Manufacturer**

DAL asked that the requirement to send any affected solenoid valves back to Zodiac for repair, in which is specified as "Required for Compliance" (RC) in the applicable service information identified in EASA AD 2020-0273 be excluded in the proposed AD. DAL stated that all affected parts must pass a flow test with no defects found prior to the next flight of the airplane after installation on the airplane.

The FAA agrees with the commenter for the reasons provided. The FAA has revised paragraph (i) of this AD to exclude the requirement to send any affected solenoid valve back to Zodiac for repair.

#### **Conclusion**

The FAA reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this final rule with the changes described previously and minor editorial changes. The FAA has determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and

- Do not add any additional burden upon the public than was already proposed in the NPRM.

The FAA also determined that these changes will not increase the economic burden on any operator or increase the scope of this final rule.

#### **Related Service Information under 1 CFR Part 51**

EASA AD 2020-0273 describes procedures for doing a special detailed inspection (flow test) of certain solenoid valves by using the flightcrew oxygen masks and replacing any solenoid valve that fails the flow test with a serviceable part. This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

#### **Costs of Compliance**

The FAA estimates that this AD affects 112 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
3 work-hours X \$85 per hour = \$255	\$0	\$255	\$28,560

The FAA estimates the following costs to do any necessary replacement that would be required based on the results of any actions. The FAA has no way of determining the number of aircraft that might need replacement:

#### **Estimated costs of on-condition action**

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
1 work-hour X \$85 per hour = \$85	Up to \$5,496	Up to \$5,581

According to the manufacturer, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators. The FAA does not control warranty coverage for affected operators. As a result, the FAA has included all known costs in the cost estimate.

## **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA

amends 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**2021-15-11 Airbus SAS:** Amendment 39-21658; Docket No. FAA-2021-0131; Project Identifier MCAI-2020-01628-T.

#### **(a) Effective Date**

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to all Airbus SAS airplanes, certificated in any category, identified in paragraphs (c)(1) through (8) of this AD.

(1) Model A330-201, -202, -203, -223, and -243 airplanes.

(2) Model A330-301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes.

(3) Model A330-841 airplanes.

(4) Model A330-941 airplanes.

(5) Model A340-211, -212, and -213 airplanes.

(6) Model A340-311, -312, and -313 airplanes.

(7) Model A340-541 airplanes.

(8) Model A340-642 airplanes.

#### **(d) Subject**

Air Transport Association (ATA) of America Code 35, Oxygen.

**(e) Reason**

This AD was prompted by reports that certain oxygen supply solenoid valves are a potential source of increased flow resistance within the flightcrew oxygen system. The FAA is issuing this AD to address increased flow resistance within the flightcrew oxygen system, which could lead to a reduced flow of oxygen supply to the flightcrew oxygen masks, and in combination with in-flight depressurization, smoke in the flight deck, or a smoke evacuation procedure, could lead to flightcrew hypoxia and loss of useful consciousness, resulting in loss of control of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Requirements**

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2020-0273, dated December 9, 2020 (EASA AD 2020-0273).

Note 1 to paragraph (g): Guidance for identifying affected oxygen supply solenoid valves as defined in EASA AD 2020-0273, can be found in Safran Service Information Letter SIL120, dated May 20, 2019.

**(h) Exceptions to EASA AD 2020-0273**

(1) Where EASA AD 2020-0273 refers to its effective date, this AD requires using the effective date of this AD.

(2) The “Remarks” section of EASA AD 2020-0273 does not apply to this AD.

**(i) No Reporting or Parts Return Required**

Although the service information referenced in EASA AD 2020-0273 specifies to submit certain information and return any affected solenoid valve to the manufacturer for repair, this AD does not require those actions.



## **(j) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, Large Aircraft Section, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the Large Aircraft Section, International Validation Branch, send it to the attention of the person identified in paragraph (k) of this AD. Information may be emailed to:

9-AVS-AIR-730-AMOC@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, Large Aircraft Section, International Validation Branch, FAA; or EASA; or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC)*: For any service information referenced in EASA AD 2020-0273 that contains RC procedures and tests: Except as required by paragraph (j)(2) of this AD, RC procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

**(k) Related Information**

For more information about this AD, contact Vladimir Ulyanov, Aerospace Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3229; email [vladimir.ulyanov@faa.gov](mailto:vladimir.ulyanov@faa.gov).

**(l) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2020-0273, dated December 9, 2020.

(ii) [Reserved]

(3) For EASA AD 2020-0273, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); Internet [www.easa.europa.eu](http://www.easa.europa.eu). You may find this EASA AD on the EASA website at <https://ad.easa.europa.eu>.

(4) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. This material may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0131.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this

material at NARA, email [fedreg.legal@nara.gov](mailto:fedreg.legal@nara.gov), or go to:

<https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on July 15, 2021.

Lance T. Gant, Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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